



EASTERN PLAINS FIRE TRIAL

CONTACT US

Write to us:

35 Dauncey Street
Kingscote SA 5223

Phone us:

☎ (08) 8553 4300

Fax us:

Fax (08) 8553 4399

Look at our website:

www.kinrm.sa.gov.au

Email us:

✉ info@kinrm.com.au

For more information:

www.kinrm.sa.gov.au

PROJECT TEAM

Dave Taylor
Threatened Species
Officer, DEH, and
coordinator, Eastern
Plains Fire Trial
Working Group



Fire in the Australian environment is both friend and foe.

Our native vegetation needs fire to renew and rejuvenate, endangered species rely on its periodic effects and the timing can be critical.

The Eastern Plains Fire Trial aims to develop a better understanding of the role of fire in maintaining ecosystem diversity and health by testing 5 management questions:

1. Does burning small areas of long unburned mallee promote significant plant species regeneration?
2. Do vegetation patches of different

shapes and connectivity, respond differently to burn events?

3. Is there a significant difference between the results obtained for spring versus autumn burns?

4. Does the intensity of fire result in a significant difference in regeneration response?

5. Does hydroaxing the overstorey result in significant differences

in regeneration response?

The trial study area is the Hundreds of Haines, MacGillivray and Menzies, an area that was extensively cleared for agriculture in the 1950 and 1960s and less than 16% (15,198 ha) of the original vegetation remains. Of this area, roughly

Carefully planned burning in long-unburnt habitat encourages regeneration of many fire-dependent plant species

The Threatened Plant Species Recovery Program, a major supporter of the Eastern Plains Fire Trial, implements targeted on-ground works to help the recovery of 15 nationally threatened plant species on Kangaroo Island. The program works to reverse the key threats of habitat fragmentation, environmental weeds, and inappropriate fire regimes and native herbivore grazing regimes.

Below left: *Leionema equestre*. Image: D.Taylor
Below right: Fire trial. Image: D.Taylor.





4064 ha is narrow-leaf mallee (*Eucalyptus cneorifolia*) community, a vegetation type virtually restricted to eastern Kangaroo Island. Further, it supports a range of unique plant species, 7 of which are nationally threatened.

The absence of fire in this area over the last 50 years has led to many of these plant communities senescing.

Anecdotal observations, botanical surveys and small scale scientific trials suggest that carefully planned burning in long unburned habitat is an effective way of encouraging the regeneration of many fire-dependent plant species.

The Easter Plains Fire Trial will have three phases:

1. Small experimental sites (< 5 ha), autumn and spring 2009
2. Medium-sized experimental site (5–30 ha), spring 2010 and autumn 2011
3. Large experimental site (> 30 ha), spring 2011.

Community support for the project has been demonstrated by the nomination of 152 sites for the trial. Of these, 51 sites of KI narrow-leaf that are < 5 ha have been selected for the first phase. The rest will still be considered for future phases.

The trial will burn 40 of the chosen sites in phase 1.

At all sites implementation will begin with development of an operations plan which identifies all actions to take place on each site.

Site preparation is the next step and will include establishing and surveying monitoring plots, establishing containment lines, hydroaxing the overstorey to increase surface fuel loads, and taking actions to protect assets.



Above: Dave Taylor explains the methods and results of early fire trials. Image: KI NRM Board.

The team for burn implementation will consist of representatives from the CFS, Department for Environment and Heritage, and KI Council as well as landholders.

Changes in flora and fauna communities will be measured at a series of long-term sites monitored by DEH and students from Flinders University and the Australian National University.

Dave Taylor, Threatened Plant Species Officer with DEH, anticipates that bushland condition will be improved at each site and that our knowledge of the ecology of eastern Kangaroo Island plant communities, and the role of fire in them, will be significantly increased.

It should also improve fire-management practices and strengthen partnerships between land managers to the benefit of the community and environment of Kangaroo Island.

Below left: *Asterolasia pheballoides*. Image: D.Taylor. Below right: Regenerating *Olearia microdisca*. Image: D.Taylor.

